

Remarks

Applicant's counsel thanks the Examiner for the careful consideration given the application. The claims have been amended to more clearly define the present invention. To simplify consideration, the independent claims will be discussed first.

Claim 1 has now been amended basically by incorporating Claim 10 into Claim 1 and adding the additional limitation that the base of the nose chamber has a diameter of no greater than 1 inch. The prior art which was applied against this concept was the combination of Walsh and Zalar in view of Tyler et al. (U.S. Patent 4,451,873). However, the combination of these three references does not teach the criticality of Claim 1 as now presented. Claim 1 as now presented specifically requires that the sealed-off exhaust hole be substantially offset from the center of the base of the nose chamber and also that the base of the nose chamber have "a diameter of no greater than 1 inch". This limitation of the base of the nose chamber having a diameter of no greater than 1 inch is critical to the invention as now defined. The embodiment of the invention which Claim 1 now defines is set forth in the specification on page 10 at lines 9-31. Therein it is described that when the exhaust hole location is offset from the center of the base, the diameter of the base may be reduced from typically about 1.1 inches to no greater than 1 inch, preferably no greater than 0.95 or 0.90 or 0.85 or 0.82 inches. Traditionally the openings in the base were put in a row, resulting in the base having a relatively wide diameter. By offsetting the exhaust hole location, the other hole locations can be put closer together and the overall diameter of the base can accordingly be reduced or narrowed. When the base is narrowed, less surface area of the glass shell is taken up by the base and more light is reflected off the glass shell rather than being lost into the base. This is critical. As pointed out at page 10, lines 27-31, it is believed that by reducing the diameter of the base in this manner, lumen efficiency can be improved from about 70% to approximately 80%. Accordingly, it is critical to the invention as now claimed to have the exhaust hole location substantially offset from the center of the base and that the base of the nose chamber have a diameter of no greater than 1 inch. None of this criticality is set forth in any of the prior art references of Walsh, Zalar or Tyler. Walsh and Zalar did not discuss this concept at all. Tyler likewise does not at all describe the criticality of offsetting the exhaust hole location from the center of the base, and in particular does not at all describe the criticality of the base of the nose chamber having a diameter of no greater than 1 inch. One reason for this is that Tyler does not even have a nose chamber. This can be seen by looking at Figs. 5, 6 and 7 of Tyler, where it can be seen that he does not even have a nose chamber, and accordingly does not have a base of a nose chamber and thus can not have any diameter to a base of a nose chamber. Since Tyler does not have a base of a nose chamber, the positioning of the sealed-off exhaust hole in the base of the nose chamber is of no

consequence to Tyler and he certainly can not be considered to have taught the criticality of the diameter of the base of the nose chamber being no greater than 1 inch. The present inventors are the first ones to understand and to appreciate the criticality of having the base of the nose chamber having a diameter no greater than 1 inch; they recognized that this reduction in the diameter of the base of the nose chamber leads to improvement of lumen efficiency from about 70% to about 80%. This criticality of the diameter of the base of the nose chamber is neither taught nor suggested in any of the prior art references, either alone or in combination. Therefore, in view of the criticality of the fact that the base of the nose chamber have a diameter of no greater than 1 inch, it is clear that Claim 1 as now presented clearly and definitely defines over all of the prior art references, either alone or in combination.

The next independent claim is Claim 15. Claim 15 stands rejected over Kokado (U.S. Patent 6,280,061). Claim 15 has now been amended to clearly and distinctly define over Kokado. Claim 15 as now presented provides that the nose chamber has a bottom and a perimeter wall having an inner surface. Claim 15 also now contains the following limitation: “substantially all of the perimeter wall inner surface being in fluid communication with the volume inside said nose chamber”. This can be seen in Figs. 6 and 7, where the area inside the nose chamber is identified by lead line 40 and shows that this volume is not filled by other materials but in fact the reflective coating 14 which coats the inner surface of the glass shell also coats the inner surface of the nose chamber as shown in Figs. 6 and 7. The fluid gas which is inside the glass shell can also circulate through the nose chamber or slot 40. Kokado, on the other hand, has completely filled up his nose chamber with a pinch seal support (4) and inorganic adhesive (8). This can be seen most clearly in Fig. 2 of Kokado where the nose chamber is completely filled with the pinch seal support 4 and inorganic adhesive 8. Claim 15 as now presented clearly defines over Kokado, since Kokado’s perimeter wall inner surface (the inner surface of perimeter wall 3 in Fig. 2 of Kokado) is clearly not in fluid communication with the volume inside Kokado’s nose chamber, since that volume is completely filled with other solid materials. Since in the present invention the nose chamber is substantially empty, while in Kokado the nose chamber is completely filled, Claim 15 as now presented clearly defines over the applied reference and thus is in condition for allowance..

Claim 27 has been rewritten in independent form and is allowable for the same basic reason. Claim 27 requires that the nose chamber have a reflective coating disposed on the inner surface of the perimeter wall of the nose chamber effective to reflect light emitted by the wire lamp. Kokado does not provide this in any way, shape or form, since the nose chamber of Kokado is completely filled with the pinch seal support 4 and the inorganic adhesive 8. Claim 27 is accordingly now allowable.

Claim 19 was originally rejected under Section 103 as unpatentable over Kokado in view

of Roller et al. (U.S. Patent 4,437,145). Claim 19 has been rewritten in independent form and modified to clearly define over Kokado in view of Roller. Claim 19 now requires that the base extend from the bottom of the glass shell, that the base have a bottom, and that "the bottom of said base of said lamp having a substantially cross-shaped cross-section". Roller clearly does not teach this, since Roller does not have a base extending from the bottom of the glass shell and for this reason obviously can not have a base having a bottom which has a substantially cross-shaped cross-section. What Roller does have is merely a mounting base 31e which is mechanically attached to a mounting bracket 30, which merely suspends the lamp and base 31 inside the lamp assembly. Obviously the teachings of Roller can not be imported into the teachings of Kokado, since the two structures are completely unrelated. Since Roller does not teach anything remotely resembling a base extending from the bottom of a glass shell, Claim 19 as now presented clearly defines over the applied references of Kokado and Roller and accordingly is now in condition for allowance.

Claim 20 and its dependencies have been indicated as allowable in the prior Office action and accordingly no further comment is needed.

All the other claims are dependent upon base claims and accordingly are allowable due to their dependency.

Since all the claims are now in condition for allowance, a Notice of Allowance is respectfully requested.

If there are any fees required by this communication, please charge any such fees to our Deposit Account No. 16-0820, Order No. 32576 (LD11288).

Respectfully submitted,
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